

ABSTRACT OF THE DISCLOSURE

5 Above a semiconductor substrate are formed a lower conductive layer, an overcoat, a lower insulating film, an etch stop film, and an upper insulating film. A resist pattern formed on the upper insulating film provides holes partially revealing the surface of the overcoat. A wet treatment is performed to the surface of the upper insulating film and the revealed surface within the holes using an acid containing thinner. An organic polymer material film and an organic anti-reflection film are formed to fill the holes. Using a resist pattern formed over the anti-reflection film, 10 an interconnect trench and a hole are formed in the insulating films and other appropriate layers. A plug is formed in the hole and an interconnect is formed in the interconnect trench. This provides a semiconductor device where deterioration of the resolution of a resist is suppressed and non-uniformity of the applied polymer material is prevented.